SUBCHAPTER B : GENERAL VOLATILE ORGANIC COMPOUND SOURCES

STORAGE OF VOLATILE ORGANIC COMPOUNDS

§§115.112-115.117, 115.119
Effective May 22, 1997

§115.112. Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the following requirements shall apply.

(1) No person shall place, store, or hold in any stationary tank, reservoir, or other container any volatile organic compound (VOC) unless such container is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere, or is equipped with at least the control device specified in Table I(a) for VOC other than crude oil and condensate, or Table II(a) for crude oil and condensate.

(2) For floating roof storage tanks subject to the provisions of paragraph (1) of this subsection, the following requirements shall apply.

(A) All openings in an internal or external floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents must provide a projection below the liquid surface or be equipped with a cover, seal, or lid. Any cover, seal, or lid must be in a closed (i.e., no visible gap) position at all times except when the device is in actual use.

(B) Automatic bleeder vents (vacuum breaker vents) are to be closed at all times except when the roof is being floated off or landed on the roof leg supports.

(C) Rim vents, if provided, are to be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(D) Any roof drain that empties into the stored liquid shall be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

(E) There shall be no visible holes, tears, or other openings in any seal or seal fabric.

Table I(a).

REQUIRED CONTROL DEVICES FOR STORAGE TANKS FOR
VOC OTHER THAN CRUDE OIL AND CONDENSATE

True Vapor Pressure of Compound at Storage Conditions	Nominal Storage Capacity	Emission Control Requirements
< 1.5 psia (10.3 kPa)	Any	None
≥ 1.5 psia (10.3 kPa) and < 11 psia (75.8 kPa)	≤ 1,000 gal (3,785 L*)	None
	> 1,000 gal (3,785 L) and ≤ 25,000 gal (94,635 L)	Submerged fill pipe or vapor recovery system
	> 25,000 gal (94,635 L) and ≤ 40,000 gal (151,416 L)	Internal or external floating roof (any type) or vapor recovery system
	> 40,000 gal (151,416 L)	Internal floating roof or External floating roof with primary seal (any type) and secondary seal or vapor recovery system
≥ 11 psia (75.8 kPa)	≤ 1,000 gal (3,785 L)	None
	> 1,000 gal (3,785 L) and ≤ 25,000 gal (94,635 L)	Submerged fill pipe or vapor recovery system
	> 25,000 gal (94,635 L)	Submerged fill pipe and vapor recovery system

*L = Liter

Table II(a).

REQUIRED CONTROL DEVICES FOR STORAGE TANKS
FOR CRUDE OIL AND CONDENSATE

True Vapor Pressure of Compound at Storage Conditions	Nominal Storage Capacity	Emission Control Requirements
< 1.5 psia (10.3 kPa)	Any	None
≥ 1.5 psia (10.3 kPa) and < 11 psia (75.8 kPa)	≤ 1,000 gal (3,785 L*)	None
	> 1,000 gal (3,785 L) and ≤ 40,000 gal (151,416 L)	Submerged fill pipe or vapor recovery system
	> 40,000 gal (151,416 L)	Internal floating roof or External floating roof with primary seal (any type) and secondary seal or vapor recovery system
≥ 11 psia (75.8 kPa)	≤ 1,000 gal (3,785 L)	None
	> 1,000 gal (3,785 L) and ≤ 40,000 gal (151,416 L)	Submerged fill pipe or vapor recovery system
	> 40,000 gal (151,416 L)	Submerged fill pipe and vapor recovery system

*L = Liter

Table I(b).

REQUIRED CONTROL DEVICES FOR STORAGE TANKS FOR
VOC OTHER THAN CRUDE OIL AND CONDENSATE

True Vapor Pressure of Compound at Storage Conditions	Nominal Storage Capacity	Emission Control Requirements
< 1.5 psia (10.3 kPa)	Any	None
≥ 1.5 psia (10.3 kPa) and < 11 psia (75.8 kPa)	≤ 1,000 gal (3,785 L*)	None
	> 1,000 gal (3,785 L) and ≤ 25,000 gal (94,635 L)	Submerged fill pipe or vapor recovery system
	> 25,000 gal (94,635 L)	Internal or external floating roof (any type) or vapor recovery system
≥ 11 psia (75.8 kPa)	≤ 1,000 (3,785 L)	None
	> 1,000 (3,785 L) and ≤ 25,000 (94,635 L)	Submerged fill pipe or vapor recovery system
	> 25,000 gal (94,635 L)	Submerged fill pipe and vapor recovery system

*L = Liter

(F) For external floating roof storage tanks, secondary seals shall be the rim-mounted type (the seal shall be continuous from the floating roof to the tank wall). The accumulated area of gaps that exceed 1/8 inch (0.32 cm) in width between the secondary seal and tank wall shall be no greater than 1.0 in^2 per foot (21 cm^2/meter) of tank diameter.

(3) Vapor recovery systems used as a control device on any stationary tank, reservoir, or other container shall maintain a minimum control efficiency of 90%.

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following requirements shall apply:

(1) No person shall place, store, or hold in any stationary tank, reservoir, or other container any VOC, unless such container is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere, or is equipped with at least the control device specified in Table I(a) for VOC other than crude oil and condensate or Table II(a) for crude oil and condensate.

(2) For floating roof storage tanks subject to the provisions of paragraph (1) of this subsection, the following requirements shall apply.

(A) All openings in an internal or external floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, must provide a projection below the liquid surface or be equipped with a cover, seal, or lid. Any cover, seal, or lid must be in a closed (i.e., no visible gap) position at all times, except when the device is in actual use.

(B) Automatic bleeder vents (vacuum breaker vents) are to be closed at all times except when the roof is being floated off or landed on the roof leg supports.

(C) Rim vents, if provided, are to be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(D) Any roof drain that empties into the stored liquid shall be equipped with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

(E) There shall be no visible holes, tears, or other openings in any seal or seal fabric.

(F) For external floating roof storage tanks, secondary seals shall be the rim-mounted type (the seal shall be continuous from the floating roof to the tank wall). The accumulated area of gaps that exceed 1/8 inch (0.32 centimeter) in width between the secondary seal and tank wall shall be no greater than 1.0 square inch per foot (21 square centimeters/meter) of tank diameter.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following requirements shall apply.

(1) No person may place, store, or hold in any stationary tank, reservoir, or other container any VOC, other than crude oil or condensate, unless such container is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere, or is designed and equipped with at least the control device specified in Table I(b) for VOC other than crude oil and condensate.

(2) For floating roof storage tanks subject to the provisions of paragraph (1) of this subsection, the following requirements shall apply:

(A) There shall be no visible holes, tears, or other openings in any seal or seal fabric.

(B) All tank gauging and sampling devices shall be vapor-tight except when gauging and sampling is taking place.

(3) No person in Matagorda or San Patricio Counties shall place, store, or hold crude oil or condensate in any stationary tank, reservoir, or other container, unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is equipped with one of the following vapor-loss control devices, properly maintained and operated:

(A) an internal floating cover or external floating roof as defined in §115.10 of this title. This control equipment shall not be permitted if the VOC has a true vapor pressure of 11.0 psia (75.8 kPa) or greater. All tank-gauging and tank-sampling devices shall be vapor-tight, except when gauging or sampling is taking place; or

(B) a vapor recovery system as defined in §115.10 of this title.

Adopted April 30, 1997 Effective May 22, 1997

§115.113. Alternate Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/ Galveston areas, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the Executive Director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

(b) For all persons in Gregg, Nueces, and Victoria Counties, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the Executive Director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, alternate methods of demonstrating and documenting continuous compliance with the applicable control

requirements or exemption criteria in this section may be approved by the Executive Director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

Adopted January 4, 1995 Effective January 27, 1995

§115.114. Inspection Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following inspection requirements shall apply.

(1) For internal floating roof storage tanks, the internal floating roof and the primary seal or the secondary seal (if one is in service) shall be visually inspected through a fixed roof inspection hatch at least once every 12 months. If the internal floating roof is not resting on the surface of the volatile organic compounds (VOC) inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the internal floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank in accordance with §§115.541-115.547 of this title (relating to Degassing or Cleaning of Stationary, Marine, and Transport Vessels). If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(2) For external floating roof storage tanks, the secondary seal gap shall be physically measured at least once every 12 months to insure compliance with §115.112(a)(2)(F) of this title (relating to Control Requirements). If the secondary seal gap exceeds the limitations specified by §115.112(a)(2)(F) of this title, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank in accordance with §§115.541-115.547 of this title. If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(3) If the tank is equipped with a mechanical shoe or liquid-mounted primary seal, compliance with §115.112(a)(2)(F) of this title can be determined by visual inspection.

(4) For external floating roof storage tanks, the secondary seal shall be visually inspected at least once every six months to ensure compliance with §115.112(a)(2)(E)-(F) of this title. If the external floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the external floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank in accordance with §§115.541-115.547 of this title. If a failure cannot be repaired within 60 days and if the

storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following inspection requirements shall apply.

(1) If during an inspection of an internal floating roof storage tank, the internal floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the internal floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank. If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(2) For external floating roof storage tanks, the secondary seal gap shall be physically measured at least once every 12 months to insure compliance with §115.112(b)(2)(F) of this title. If the secondary seal gap exceeds the limitations specified by §115.112(b)(2)(F) of this title, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank. If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(3) If the tank is equipped with a mechanical shoe or liquid-mounted primary seal, compliance with §115.112(b)(2)(F) of this title can be determined by visual inspection.

(4) For external floating roof storage tanks, the secondary seal shall be visually inspected at least once every 12 months to insure compliance with §115.112(b)(2)(E)-(F) of this title. If the external floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the external floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank. If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following inspection requirements shall apply.

(1) If during an inspection of an internal floating roof storage tank, the internal floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the internal floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank. If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

(2) If during an inspection of an external floating roof storage tank, the external floating roof is not resting on the surface of the VOC inside the storage tank and is not resting on the leg supports; or liquid has accumulated on the external floating roof; or the seal is detached; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage tank, within 60 days of the inspection the owner or operator shall repair the items or shall empty and degas the storage tank. If a failure cannot be repaired within 60 days and if the storage tank cannot be emptied within 60 days, the owner or operator may submit written requests for up to two extensions of up to 30 additional days each to the appropriate regional office. The owner or operator shall submit a copy to any local air pollution control program with jurisdiction. Each request for an extension shall include a statement that alternate storage capacity is unavailable and a schedule that will assure that the repairs will be completed as soon as possible.

Adopted April 30, 1997 Effective May 22, 1997

§115.115. Approved Test Methods.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, compliance with §115.112(a) of this title (concerning Control Requirements) shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 Code of Federal Regulations (CFR) 60, Appendix A) for determining flow rates, as necessary;

(2) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(3) Test Method 22 (40 CFR 60, Appendix A) for visual determination of fugitive emissions from material sources and smoke emissions from flares;

(4) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(5) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(6) test method described in 40 CFR 60.113a(a)(1)(ii) (effective April 8, 1987) for measurement of storage tank seal gap;

(7) determination of true vapor pressure using American Society for Testing and Materials (ASTM) Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure; or

(8) minor modifications to these test methods approved by the Executive Director.

(b) For Gregg, Nueces, and Victoria Counties, compliance with §115.112(b) of this title shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 CFR 60, Appendix A) for determining flow rates, as necessary;

(2) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(3) Test Method 22 (40 CFR 60, Appendix A) for visual determination of fugitive emissions from material sources and smoke emissions from flares;

(4) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(5) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(6) test method described in 40 CFR 60.113a(a)(1)(ii) (effective April 8, 1987) for measurement of storage tank seal gap;

(7) determination of true vapor pressure using ASTM Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure; or

(8) minor modifications to these test methods approved by the Executive Director.

Adopted April 30, 1997 Effective May 22, 1997

§115.116. Monitoring and Recordkeeping Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/ Galveston areas, the following recordkeeping requirements shall apply.

(1) The owner or operator of any storage vessel with an external floating roof which is exempted from the requirement for a secondary seal as specified in §115.117(a)(1), (6), and (7) of this title (relating to Exemptions) and used to store volatile organic compounds (VOC) with a true vapor pressure greater than 1.0 psia (6.9 kPa) at storage conditions shall maintain records of the type of VOC stored and the average monthly true vapor pressure of the stored liquid.

(2) The results of inspections required by §115.114(a) of this title (relating to Inspection Requirements) shall be recorded. For secondary seal gaps that are required to be physically measured during inspection, these records shall include a calculation of emissions for all secondary seal gaps that exceed 1/8 inch (0.32 cm) where the accumulated area of such gaps is greater than 1.0 square inch per foot (21 square centimeters per meter) of tank diameter. These calculated emissions (Tr) shall be reported in the annual emissions inventory submittal required by §101.10 of this title (relating to Emissions Inventory Requirements). The emissions shall be calculated using the following methodology:

A. Allowable Seal Gap (>1/8 inch wide): As (square inches) = 1 square inch per tank diameter foot x tank diameter

B. Measured Seal Gap: Ms (square inches)

C. Reportable Seal Gap Area: Rs = Ms - As in square inches

D. Reportable Seal Gap/Allowable Ratio: RRs = Rs divided by As

E. Tank Circumference: Tc (feet)

F. Reportable Seal Gap Length (total linear feet of seal gap greater than 1/8 inch gap width): Rl

G. Reportable Seal Gap Length/Tank Circumference Ratio: RRl = Rl/Tc

H. Tank Emissions (with good single seal): Ts = AP-42 Calculation (convert to pounds/day)

I. Tank Emissions (with two good seals): Tss = AP-42 Calculation (convert to pounds/day)

Note: Use maximum local monthly average ambient temperature as reported by the National Weather Service to calculate true vapor pressure.

J. Reportable emissions: Tr (pounds) = (Ts - Tss) x RRs x RRl x 90 days

Note: In no case should Tr be greater than (Ts - Tss).

(3) Affected persons shall install and maintain monitors to continuously measure and record operational parameters of any of the following emission control devices installed to meet applicable control requirements. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including:

(A) the exhaust gas temperature immediately downstream of a direct-flame incinerator;

(B) the inlet and outlet gas temperature of a chiller or catalytic incinerator;

(C) the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions), to determine if breakthrough has occurred; and

(D) the date and reason for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(4) The results of any testing conducted in accordance with the provisions specified in §115.115(a) of this title (relating to Testing Requirements) shall be maintained at an affected facility.

(5) All records shall be maintained for two years and be made available for review upon request by authorized representatives of the executive director, United States Environmental Protection Agency (EPA), or local air pollution control agencies.

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following recordkeeping requirements shall apply.

(1) The owner or operator of any storage vessel with an external floating roof which is exempted from the requirement for a secondary seal as specified in §115.117(b)(1), (6), and (7) of this title and used to store VOC with a true vapor pressure greater than 1.0 psia (6.9 kPa) at storage conditions shall maintain records of the type of VOC stored and the average monthly true vapor pressure of the stored liquid.

(2) The results of inspections required by §115.114(b) of this title shall be recorded.

(3) In Victoria County, affected persons shall install and maintain monitors to continuously measure and record operational parameters of any of the following emission control devices installed to meet applicable control requirements. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including:

(A) the exhaust gas temperature immediately downstream of a direct-flame incinerator;

(B) the inlet and outlet gas temperature of a chiller or catalytic incinerator;

(C) the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title, to determine if breakthrough has occurred; and

(D) the date and reason for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(4) The results of any testing conducted in accordance with the provisions specified in §115.115(b) of this title shall be maintained at an affected facility.

(5) All records shall be maintained for two years and be made available for review upon request by authorized representatives of the executive director, EPA, or local air pollution control agencies.

Adopted April 30, 1997 Effective May 22, 1997

§115.117. Exemptions.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions apply:

(1) Except as provided in §115.116 of this title (relating to Monitoring and Recordkeeping Requirements), any volatile organic compound (VOC) with a true vapor pressure less than 1.5 psia (10.3 kPa) at storage conditions is exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(2) Crude oil and condensate stored in tanks with a nominal capacity less than 210,000 gallons (794,850 liters), prior to custody transfer, is exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(3) Storage containers which have a capacity of less than 25,000 gallons (94,625 liters) located at motor vehicle fuel dispensing facilities are exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(4) A welded tank with a mechanical shoe primary seal which has a secondary seal from the top of the shoe seal to the tank wall (a shoe-mounted secondary seal) is exempt from the requirement for retrofitting with a rim-mounted secondary seal if the shoe-mounted secondary seal was installed or scheduled for installation before August 22, 1980.

(5) External floating roof tanks storing waxy, high pour point crude oils are exempt from any secondary seal requirements of §115.112(a) of this title (relating to Control Requirements).

(6) Any welded tank storing VOC having a true vapor pressure less than 4.0 psia (27.6 Kpa) is exempt from any external floating roof secondary seal requirement if any of the following types of primary seals have been installed before August 22, 1980:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(7) Any welded tank storing crude oil having a true vapor pressure equal to or greater than 4.0 psia (27.6 Kpa) and less than 6.0 psia (41.4 kPa) at storage conditions is exempt from any external floating roof secondary seal requirement if any of the following types of primary seals have been installed before December 10, 1982:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(b) For all persons in Gregg, Nueces, and Victoria Counties, the following exemptions apply:

(1) Except as provided in §115.116 of this title, any VOC with a true vapor pressure less than 1.5 psia (10.3 kPa) at storage conditions is exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(2) Crude oil and condensate stored in tanks with a nominal capacity less than 210,000 gallons (794,850 liters), prior to custody transfer, is exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(3) Storage containers which have a capacity of less than 25,000 gallons (94,625 liters) located at motor vehicle fuel dispensing facilities are exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(4) A welded tank with a mechanical shoe primary seal which has a secondary seal from the top of the shoe seal to the tank wall (a shoe-mounted secondary seal) is exempt from the requirement for retrofitting with a rim-mounted secondary seal if the shoe-mounted secondary seal was installed or scheduled for installation before August 22, 1980.

(5) External floating roof tanks storing waxy, high pour point crude oils are exempt from any secondary seal requirements of §115.112(b) of this title.

(6) Any welded tank storing VOC having a true vapor pressure less than 4.0 psia (27.6 kPa) is exempt from any external secondary seal requirement if any of the following types of primary seals have been installed before August 22, 1980:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(7) Any welded tank storing crude oil having a true vapor pressure equal to or greater than 4.0 psia (27.6 kPa) and less than 6.0 psia (41.4 kPa) at storage conditions is exempt from any external secondary seal requirement if any of the following types of primary seals have been installed before December 10, 1982:

(A) a mechanical shoe seal;

(B) a liquid-mounted foam seal; or

(C) a liquid-mounted liquid filled type seal.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following exemptions apply:

(1) Any VOC with a true vapor pressure less than 1.5 psia (10.3 kPa) at storage conditions is exempt from the requirements of this undesignated head (relating to the Storage of Volatile Organic Compounds).

(2) Slotted sampling and gauge pipes installed in any floating roof storage tank are exempt from the provisions of §115.112(c) of this title.

(3) Storage tanks with nominal capacities between 1,000 gallons (3,785 liters) and 25,000 gallons (94,625 liters) are exempt from the requirements of §115.112(c)(1) of this title if construction began before May 12, 1973.

(4) Storage tanks with a nominal capacity of 420,000 gallons (1,589,700 liters) or less are exempt from the requirements of §115.112(c)(3) of this title.

Adopted February 14, 1996 Effective March 7, 1996

§115.119. Counties and Compliance Schedules.

(a) All persons in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Harris, Hardin, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties affected by the requirement to calculate and report emissions resulting from secondary seal gaps that exceed 1/8 inch (0.32 cm) where the accumulated area of such gaps is greater than 1.0 square inch per foot (21 square centimeters per meter) of tank diameter as specified in §115.116(a)(2) of this title (relating to Monitoring and Recordkeeping Requirements) shall be in compliance with these calculation and emission reporting requirements beginning with the calendar year that starts on January 1, 1996.

(b) All persons in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Harris, Hardin, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties affected by the requirement to conduct annual visual inspections of internal floating roof storage tanks as specified in §115.114(a)(1) of this title (relating to Inspection Requirements) shall be in compliance with these inspection requirements as soon as practicable, but no later than March 7, 1997.

Adopted April 30, 1997 Effective May 22, 1997

VENT GAS CONTROL

§§115.121-115.123, 115.125-115.127, 115.129
Effective May 22, 1997

§115.121. Emission Specifications.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas as defined in §115.10 of this title (relating to Definitions), the following emission specifications shall apply.

(1) No person may allow a vent gas stream containing volatile organic compounds (VOC) to be emitted from any process vent, unless the vent gas stream is controlled properly in accordance with §115.122(a)(1) of this title (relating to Control Requirements).

(2) No person may allow a vent gas stream to be emitted from the following processes unless the vent gas stream is controlled properly in accordance with §115.122(a)(2) of this title:

(A) any synthetic organic chemical manufacturing industry reactor process or distillation operation;

(B) any air oxidation synthetic organic chemical manufacturing process;

(C) any liquid phase polypropylene manufacturing process;

(D) any liquid phase slurry high-density polyethylene manufacturing process; or

(E) any continuous polystyrene manufacturing process.

(3) In the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, VOC emissions from bakery ovens, as defined in §115.10 of this title, shall be controlled properly in accordance with §115.122(a)(3) of this title.

(b) In Nueces and Victoria Counties, no person may allow a vent gas stream to be emitted from any process vent containing one or more of the following VOC or classes of VOC, unless the vent gas stream is controlled properly in accordance with §115.122(b) of this title:

(1) emissions of ethylene associated with the formation, handling, and storage of solidified low-density polyethylene;

(2) emissions of the following specific VOC: ethylene, butadiene, isobutylene, styrene, isoprene, propylene, methylstyrene; and

(3) emissions of specified classes of VOC, including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C8 and above).

(c) For persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following emission specifications shall apply:

(1) No person may allow a vent gas stream to be emitted from any process vent containing one or more of the following VOC or classes of VOC, unless the vent gas stream is controlled properly in accordance with §115.122(c)(1) of this title:

(A) emissions of ethylene associated with the formation, handling, and storage of solidified low-density polyethylene;

(B) emissions of the following specific VOC: ethylene, butadiene, isobutylene, styrene, isoprene, propylene, and methylstyrene; and

(C) emissions of specified classes of VOC, including aldehydes, alcohols, aromatics, ethers, olefins, peroxides, amines, acids, esters, ketones, sulfides, and branched chain hydrocarbons (C8 and above).

(2) No person may allow a vent gas stream to be emitted from any catalyst regeneration of a petroleum or chemical process system, basic oxygen furnace, or fluid coking unit into the atmosphere, unless the vent gas stream is properly controlled in accordance with §115.122(c)(2) of this title.

(3) No person may allow a vent gas stream to be emitted from any iron cupola into the atmosphere, unless the vent gas stream is properly controlled in accordance with §115.122(c)(3) of this title.

(4) Vent gas streams from blast furnaces shall be controlled properly in accordance with §115.122(c)(4) of this title.

Adopted April 30, 1997 Effective May 22, 1997

§115.122. Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following control requirements shall apply:

(1) Any vent gas streams affected by §115.121(a)(1) of this title (relating to Emission Specifications) must be controlled properly with a control efficiency of at least 90% or to a volatile organic compound (VOC) concentration of no more than 20 parts per million by volume (ppmv) (on a dry basis corrected to 3% oxygen for combustion devices):

(A) in a direct-flame incinerator at a temperature equal to or greater than 1300°F (704°C);

(B) in a smokeless flare; or

(C) by any other vapor recovery system, as defined in §115.10 of this title (relating to Definitions).

(2) Any vent gas streams affected by §115.121(a)(2) of this title must be controlled properly with a control efficiency of at least 98% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3% oxygen for combustion devices):

(A) in a smokeless flare; or

(B) by any other vapor recovery system, as defined in §115.10 of this title.

(3) For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, VOC emissions from each bakery with a bakery oven vent gas stream(s) affected by §115.121(a)(3) of this title shall be reduced as follows.

(A) Each bakery in the Houston/Galveston area with a total weight of VOC emitted from all bakery ovens on the property, when uncontrolled, equal to or greater than 25 tons per calendar year shall reduce total VOC emissions by at least 30% from the bakery's 1990 baseline emissions inventory by May 31, 1996.

(B) Each bakery in the Dallas/Fort Worth area with a total weight of VOC emitted from all bakery ovens on the property, when uncontrolled, equal to or greater than 100 tons per calendar year shall reduce total VOC emissions by at least 30% from the bakery's 1990 baseline emissions inventory by May 31, 1996.

(C) Each bakery in the Dallas/Fort Worth area with a total weight of VOC emitted from all bakery ovens on the property, when uncontrolled, equal to or greater than 25 tons per calendar year, but less than 100 tons per calendar year, shall reduce total VOC emissions by at least 30% from the bakery's 1990 baseline emissions inventory in accordance with the schedule specified in §115.129(a)(4) of this title (relating to Counties and Compliance Schedules).

(D) Each bakery in the El Paso area with a total weight of VOC emitted from all bakery ovens on the property, when uncontrolled, equal to or greater than 25 tons per calendar year shall reduce total VOC emissions by at least 30% from the bakery's 1990 baseline emissions inventory in accordance with the schedule specified in §115.129(a)(5) of this title.

(4) Any vent gas stream that becomes subject to the provisions of paragraphs (1), (2), or (3) of this subsection by exceeding provisions of §115.127(a) of this title (relating to Exemptions) shall remain subject to the provisions of this subsection, even if throughput or emissions later fall below the exemption limits unless and until emissions are reduced to no more than the controlled emissions level existing before implementation of the project by which throughput or emission rate was reduced to less than the applicable exemption limits in §115.127(a) of this title; and:

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or standard exemption required by Chapter 116 or Chapter 106 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification; and Exemptions from Permitting). If a standard exemption is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that standard exemption; or

(B) if authorization by permit, permit amendment, standard permit, or standard exemption is not required for the project, the owner/operator has given the executive director 30 days' notice of the project in writing.

(b) For all persons in Nueces and Victoria Counties, any vent gas streams affected by §115.121(b) of this title must be controlled properly with a control efficiency of at least 90% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3% oxygen for combustion devices):

(1) in a direct-flame incinerator at a temperature equal to or greater than 1300°F (704°C);

(2) in a smokeless flare; or

(3) by any other vapor recovery system, as defined in §115.10 of this title.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following control requirements shall apply:

(1) Any vent gas streams affected by §115.121(c)(1) of this title must be controlled properly:

(A) in a direct-flame incinerator at a temperature equal to or greater than 1300°F (704°C);

(B) in a smokeless flare; or

(C) by any other vapor recovery system, as defined in §115.10 of this title, with a control efficiency of at least 90% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3% oxygen for combustion devices).

(2) Any vent gas streams affected by §115.121(c)(2) of this title must be controlled properly:

(A) in a direct-flame incinerator or boiler at a temperature equal to or greater than 1300°F (704°C); or

(B) by any other vapor recovery system, as defined in §115.10 of this title, with a control efficiency of at least 90% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3% oxygen for combustion devices).

(3) Any vent gas streams affected by §115.121(c)(3) of this title must be controlled properly:

(A) at a temperature equal to or greater than 1300°F (704°C) in an afterburner having a retention time of at least one-fourth (¼) of a second, and having a steady flame that is not affected by the cupola charge and relights automatically if extinguished; or

(B) by any other vapor recovery system, as defined in §115.10 of this title, with a control efficiency of at least 90% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3% oxygen for combustion devices).

(4) Any vent gas streams affected by §115.121(c)(4) of this title must be controlled properly:

(A) in a smokeless flare or in a combustion device used in a heating process associated with the operation of a blast furnace ; or

(B) by any other vapor recovery system, as defined in §115.10 of this title, with a control efficiency of at least 90% or to a VOC concentration of no more than 20 ppmv (on a dry basis corrected to 3% oxygen for combustion devices).

Adopted April 30, 1997 Effective May 22, 1997

§115.123. Alternate Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/ Galveston areas:

(1) Alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this undesignated head (relating to Vent Gas Control) may be approved by the executive director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

(2) The owner or operator of a vent gas stream control device with a control efficiency of at least 90% which was installed prior to the effective date of the applicable paragraphs of this undesignated head (relating to Vent Gas Control) may request an alternate reasonably available control technology (ARACT) determination. The Executive Director shall approve the ARACT if it is determined to be economically unreasonable to replace the control device with a new control device meeting the requirements of the applicable rule(s). Each ARACT approved by the Executive Director shall include a requirement that the control device be operated at its maximum efficiency. Each ARACT shall only be valid until the control

device undergoes a replacement, a modification as defined in 40 CFR 60.14, or a reconstruction as defined in 40 CFR 60.15, at which time the replacement, modified, or reconstructed control device shall meet the requirements of the applicable rule(s). Any request for an ARACT determination shall be submitted to the Executive Director no later than May 31, 1994. The Executive Director may direct the holder of an ARACT to reapply for their ARACT if it is more than 10 years since the date of installation of the control device and there is good cause to believe that it is now economically reasonable to meet the requirements of the applicable rule(s). Within three months of an Executive Director request, the holder of an ARACT shall reapply for their ARACT. If the reapplication for an ARACT is denied, the holder of the ARACT shall meet the requirements of the applicable rule(s) as soon as practicable, but no later than two years from the date of denial.

(b) For all persons in Nueces and Victoria Counties, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this undesignated head (relating to Vent Gas Control) may be approved by the executive director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this undesignated head (relating to Vent Gas Control) may be approved by the executive director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

Adopted April 30, 1997 Effective May 22, 1997

§115.125. Testing Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, compliance with §115.121(a) of this title (relating to Emission Specifications) shall be determined by applying the following test methods, as appropriate:

(1) Test Method 22 (40 Code of Federal Regulations (CFR) 60, Appendix A) for visual determination of fugitive emissions from material sources and smoke emissions from flares;

(2) additional test method requirements for flares described in 40 CFR 60.18(f);

(3) Test Methods 1-4 (40 CFR 60, Appendix A) for determining flow rate, as necessary;

(4) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(5) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(6) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis; or

(7) minor modifications to these test methods approved by the Executive Director.

(b) For Nueces and Victoria Counties, compliance with §115.121(b) of this title shall be determined by applying the following test methods, as appropriate:

(1) Test Method 22 (40 CFR 60, Appendix A) for visual determination of fugitive emissions from material sources and smoke emissions from flares;

(2) additional test method requirements for flares described in 40 CFR 60.18(f);

(3) Test Methods 1-4 (40 CFR 60, Appendix A) for determining flow rate, as necessary;

(4) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(5) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(6) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis; or

(7) minor modifications to these test methods approved by the Executive Director.

Adopted May 8, 1992 Effective August 1, 1992

§115.126. Monitoring and Recordkeeping Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the owner or operator of any facility which emits volatile organic compounds (VOC) through a stationary vent shall maintain records at the facility for at least two years and shall make such records available to representatives of the executive director, United States Environmental Protection Agency (EPA), or any local air pollution control agency having jurisdiction in the area upon request. These records shall include, but not be limited to, the following.

(1) Records for each vent required to satisfy the provisions of §115.121(a)(1)-(3) of this title (relating to Emission Specifications) shall be sufficient to demonstrate the proper functioning of applicable control equipment to design specifications, including:

(A) continuous monitoring of the exhaust gas temperature immediately downstream of a direct-flame incinerator;

(B) continuous monitoring of temperature upstream and downstream of a catalytic incinerator or chiller;

(C) continuous monitoring of the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions);

(D) the date and reason for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities; and

(E) the results of any testing of any vent conducted at an affected facility in accordance with the provisions specified in §115.125(a) of this title (relating to Testing Requirements).

(2) Records for each vent exempted from control requirements in accordance with §115.127(a) of this title (relating to Exemptions) shall be sufficient to demonstrate compliance with applicable exemption limits, including:

(A) the pounds of ethylene emitted per 1,000 pounds of low-density polyethylene produced;

(B) the combined weight of VOC of each vent gas stream on a daily basis;

(C) the true partial pressure of VOC in each vent gas stream on a daily basis; and

(D) the results of any testing of any vent conducted at an affected facility in accordance with the provisions specified in this section.

(3) As an alternative to the requirements of paragraph (2) of this subsection, records for each vent exempted from control requirements in accordance with §115.127(a) of this title and having a VOC emission rate or concentration less than 50% of the applicable exemption limits at maximum actual operating conditions shall be sufficient to demonstrate continuous compliance with the applicable exemption limit. These records shall include complete information from either test results or appropriate calculations which clearly documents that the emission characteristics at maximum actual operating conditions are less than 50% of the applicable exemption limits. This documentation shall include the operating parameter levels that occurred during any testing, and the maximum levels feasible for the process.

(4) For bakeries affected by §115.122(a)(3)(A)-(B) of this title (relating to Control Requirements), the following additional requirements apply.

(A) The owner or operator of each bakery shall submit an initial control plan no later than May 31, 1995, to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall reduction of VOC emissions from the bakery’s 1990 baseline emissions inventory will be at least 30% by May 31, 1996. At a minimum, the control plan shall include the emission point number (EPN) and the facility identification number (FIN) of each bakery oven and any associated control device, a plot plan showing the location, EPN, and FIN of each

bakery oven and any associated control device, and the 1990 VOC emission rates (consistent with the bakery's 1990 emissions inventory). The projected 1996 VOC emission rates shall be calculated in a manner consistent with the 1990 emissions inventory.

(B) In order to document continued compliance with §115.122(a)(3) of this title, the owner or operator of each bakery shall submit an annual report no later than March 31 of each year to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall reduction of VOC emissions from the bakery's 1990 baseline emissions inventory during the preceding calendar year is at least 30% after May 31, 1996. At a minimum, the report shall include the EPN and FIN of each bakery oven and any associated control device, a plot plan showing the location, EPN, and FIN of each bakery oven and any associated control device, and the VOC emission rates. The emission rates for the proceeding calendar year shall be calculated in a manner consistent with the 1990 emissions inventory.

(C) All representations in initial control plans and annual reports become enforceable conditions. It shall be unlawful for any person to vary from such representations if the variation will cause a change in the identity of the specific emission sources being controlled or the method of control of emissions unless the owner or operator of the bakery submits a revised control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction within 30 days of the change. All control plans and reports shall include documentation that the overall reduction of VOC emissions from the bakery's 1990 baseline emissions inventory continues to be at least 30%. The emission rates shall be calculated in a manner consistent with the 1990 emissions inventory.

(5) For bakeries affected by §115.122(a)(3)(C) and (D) of this title, the following additional requirements apply.

(A) No later than six months after the commission publishes notification in the *Texas Register* as specified in §115.129(a)(4) of this title (relating to Counties and Compliance Schedules), the owner or operator of each bakery shall submit an initial control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall reduction of VOC emissions from the bakery's 1990 baseline emissions inventory will be at least 30%. At a minimum, the control plan shall include the EPN and the FIN of each bakery oven and any associated control device, a plot plan showing the location, EPN, and FIN of each bakery oven and any associated control device, and the 1990 VOC emission rates (consistent with the bakery's 1990 emissions inventory). The projected VOC emission rates shall be calculated in a manner consistent with the 1990 emissions inventory.

(B) In order to document continued compliance with §115.122(a)(3) of this title, the owner or operator of each bakery shall submit an annual report no later than March 31 of each year to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall reduction of VOC emissions from the bakery's 1990 baseline emissions inventory during the preceding calendar year is at least 30%. At a minimum, the report shall include the EPN and FIN of each bakery oven and any associated control device, a plot plan showing the location, EPN, and FIN of each bakery oven and any associated control device, and the VOC emission rates.

The emission rates for the proceeding calendar year shall be calculated in a manner consistent with the 1990 emissions inventory.

(C) All representations in initial control plans and annual reports become enforceable conditions. It shall be unlawful for any person to vary from such representations if the variation will cause a change in the identity of the specific emission sources being controlled or the method of control of emissions unless the owner or operator of the bakery submits a revised control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction within 30 days of the change. All control plans and reports shall include documentation that the overall reduction of VOC emissions from the bakery's 1990 baseline emissions inventory continues to be at least 30%. The emission rates shall be calculated in a manner consistent with the 1990 emissions inventory.

(6) The owner or operator of a facility that uses a flare to meet the requirements of §115.122(a)(2) shall install, calibrate, maintain, and operate according to the manufacturer's specifications, a heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate continuous presence of a flame.

(b) For Victoria County, the owner or operator of any facility which emits VOC through a stationary vent shall maintain records at the facility for at least two years and shall make such records available to representatives of the executive director, EPA, or any local air pollution control agency having jurisdiction in the area upon request. These records shall include, but not be limited to, the following:

(1) Records for each vent required to satisfy the provisions of §115.121(b) of this title shall be sufficient to demonstrate the proper functioning of applicable control equipment to design specifications, including:

(A) continuous monitoring of the exhaust gas temperature immediately downstream of a direct-flame incinerator;

(B) continuous monitoring of temperatures upstream and downstream of a catalytic incinerator or chiller;

(C) continuous monitoring of the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title;

(D) the date and reason for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities; and

(E) the results of any testing of any vent conducted at an affected facility in accordance with the provisions specified in §115.125(b) of this title.

(2) Records for each vent exempted from control requirements in accordance with §115.127(b) of this title shall be sufficient to demonstrate compliance with applicable exemption limits, including:

(A) the pounds of ethylene emitted per 1,000 pounds of low-density polyethylene produced;

(B) the combined weight of VOC of each vent gas stream on a daily basis;

(C) the true partial pressure of VOC in each vent gas stream on a daily basis; and

(D) the results of any testing of any vent conducted at an affected facility in accordance with the provisions specified in this section.

(3) As an alternative to the requirements of paragraph (2) of this subsection, records for each vent exempted from control requirements in accordance with §115.127(b) of this title and having a VOC emission rate or concentration less than 50% of the applicable exemption limits at maximum actual operating conditions shall be sufficient to demonstrate continuous compliance with the applicable exemption limit. These records shall include complete information from either test results or appropriate calculations which clearly documents that the emission characteristics at maximum actual operating conditions are less than 50% of the applicable exemption limits. This documentation shall include the operating parameter levels that occurred during any testing, and the maximum levels feasible for the process.

Adopted April 30, 1997 Effective May 22, 1997

§115.127. Exemptions.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions apply.

(1) A vent gas stream from a low-density polyethylene plant is exempt from the requirements of §115.121(a)(1) of this title (relating to Emission Specifications) if no more than 1.1 pounds of ethylene per 1,000 pounds (1.1 kg/1000 kg) of product are emitted from all the vent gas streams associated with the formation, handling, and storage of solidified product.

(2) The following vent gas streams are exempt from the requirements of §115.121(a)(1) of this title:

(A) a vent gas stream having a combined weight of volatile organic compounds (VOC) equal to or less than 100 pounds (45.4 kg) in any continuous 24-hour period;

(B) a vent gas stream specified in §115.121(a)(1) of this title with a concentration of VOC less than 0.009 pounds per square inch absolute (psia) true partial pressure (612 parts per million (ppm));

(C) until November 15, 1999, for facilities which have been assigned the code number 26 as described in the document Standard Industrial Classification (SIC) Manual, 1972, as amended by the 1977 Supplement, a vent gas stream specified in §115.121(a)(1) of this title with a concentration of VOC less than 0.44 psia true partial pressure (30,000 ppm);

(D) a vent gas stream which is subject to §115.121(a)(2) or (3) of this title; and

(E) a vent gas stream which qualifies for exemption under paragraphs (3), (4)(B), (4)(C), (4)(D), (4)(E), or (5) of this subsection.

(3) The following vent gas streams are exempt from the requirements of §115.121(a)(2)(B)-(E) of this title:

(A) a vent gas stream having a combined weight of VOC equal to or less than 100 pounds (45.4 kilograms) in any continuous 24-hour period;

(B) a vent gas stream from any air oxidation synthetic organic chemical manufacturing process with a concentration of VOC less than 0.009 pounds psia true partial pressure (612 ppm)); and

(C) a vent gas stream from any liquid phase polypropylene manufacturing process, any liquid phase slurry high-density polyethylene manufacturing process, and any continuous polystyrene manufacturing process with a concentration of VOC less than 0.006 psia true partial pressure (408 ppm).

(4) For synthetic organic chemical manufacturing industry (SOCMI) reactor processes and distillation operations:

(A) Any reactor process or distillation operation that is designed and operated in a batch mode is exempt from the requirements of §115.121(a)(2)(A) of this title. For the purposes of this subparagraph, batch mode means any noncontinuous reactor process or distillation operation which is not characterized by steady-state conditions, and in which the addition of reactants does not occur simultaneously with the removal of products.

(B) Any reactor process or distillation operation operating in a process unit with a total design capacity of less than 1,100 tons per year, for all chemicals produced within that unit, is exempt from the requirements of §115.121(a)(2)(A) of this title.

(C) Any reactor process or distillation operation vent gas stream with a flow rate less than 0.011 standard cubic meters per minute or a VOC concentration less than 500 parts per million by volume is exempt from the requirements of §115.121(a)(2)(A) of this title.

(D) Any distillation operation vent gas stream which meets the requirements of 40 Code of Federal Regulations (CFR) 60.660(c)(4) or 60.662(c) (concerning Subpart NNN - Standards of Performance for VOC Emissions From SOCMI Distillation Operations, effective June 29, 1990) is exempt from the requirements of §115.121(a)(2)(A) of this title.

(E) Any reactor process vent gas stream which meets the requirements of 40 CFR 60.700(c)(2) or 60.702(c) (concerning Subpart RRR - Standards of Performance for VOC Emissions From

SOCMI Reactor Processes, effective November 27, 1995) is exempt from the requirements of §115.121(a)(2)(A) of this title.

(5) Bakeries are exempt from the requirements of §115.121(a)(3) and §115.122(a)(3) of this title (relating to Emission Specifications and Control Requirements) if the total weight of VOC emitted from all bakery ovens on the property, when uncontrolled, is less than 25 tons per calendar year.

(6) A vent gas stream is exempt from this undesignated head (relating to Vent Gas Control) if all of the VOCs in the vent gas stream originate from a source(s) for which another undesignated head within Chapter 115 (for example, Storage of VOC) has established a control requirement(s), emission specification(s), or exemption(s) which applies to that VOC source category in that county.

(7) A combustion unit exhaust stream is exempt from this undesignated head (relating to Vent Gas Control) provided that the unit is not being used as a control device for any vent gas stream which is subject to this undesignated head and which originates from a non-combustion source.

(b) For all persons in Nueces and Victoria Counties, the following exemptions apply:

(1) A vent gas stream from a low-density polyethylene plant is exempt from the requirements of §115.121(b)(1) of this title if no more than 1.1 pounds of ethylene per 1,000 pounds (1.1 kg/1000 kg) of product are emitted from all the vent gas streams associated with the formation, handling, and storage of the solidified product.

(2) The following vent gas streams are exempt from the requirements of §115.121(b) of this title:

(A) a vent gas stream having a combined weight of the VOC or classes of compounds specified in §115.121(b)(2)-(3) of this title equal to or less than 100 pounds (45.4 kg) in any continuous 24-hour period; and

(B) a vent gas stream with a concentration of the VOC or classes of compounds specified in §115.121(b)(2)-(3) of this title less than 0.44 psia true partial pressure (30,000 ppm).

(3) A vent gas stream is exempt from this undesignated head (relating to Vent Gas Control) if all of the VOCs in the vent gas stream originate from a source(s) for which another undesignated head within Chapter 115 (for example, Storage of VOC) has established a control requirement(s), emission specification(s), or exemption(s) which applies to that VOC source category in that county.

(4) A combustion unit exhaust stream is exempt from this undesignated head (relating to Vent Gas Control) provided that the unit is not being used as a control device for any vent gas stream which is subject to this undesignated head and which originates from a non-combustion source.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following exemptions apply:

(1) The following vent gas streams are exempt from the requirements of §115.121(c)(1) of this title:

(A) a vent gas stream from a low-density polyethylene plant provided that no more than 1.1 pounds of ethylene per 1,000 pounds (1.1 kg/1000 kg) of product are emitted from all the vent gas streams associated with the formation, handling, and storage of solidified product;

(B) a vent gas stream having a combined weight of the VOC or classes of compounds specified in §115.121(c)(1)(B)-(C) of this title equal to or less than 100 pounds (45.4 kg) in any continuous 24-hour period; and

(C) a vent gas stream having a concentration of the VOC specified in §115.121(c)(1)(B) and (C) of this title less than 0.44 psia true partial pressure (30,000 ppm).

(2) A vent gas stream specified in §115.121(c)(2) of this title which emits less than or equal to 5 tons (4,536 kg) of total uncontrolled VOC in any one calendar year is exempt from the requirements of §115.121(c)(2) of this title.

(3) A vent gas stream is exempt from this undesignated head (relating to Vent Gas Control) if all of the VOCs in the vent gas stream originate from a source(s) for which another undesignated head within Chapter 115 (for example, Storage of VOC) has established a control requirement(s), emission specification(s), or exemption(s) which applies to that VOC source category in that county.

(4) A combustion unit exhaust stream is exempt from this undesignated head (relating to Vent Gas Control) provided that the unit is not being used as a control device for any vent gas stream which is subject to this undesignated head and which originates from a non-combustion source.

Adopted April 30, 1997 Effective May 22, 1997

§115.129. Counties and Compliance Schedules.

All affected persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas shall be in compliance with this undesignated head (relating to Vent Gas Control) in accordance with the following schedules:

(1) All affected synthetic organic chemical manufacturing industry reactor process or distillation operations in Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange, Tarrant, and Waller Counties shall be in compliance with §115.121(a)(2)(A) of this title (relating to Emission Specifications) as soon as practicable, but no later than November 15, 1996.

(2) All affected bakeries in Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties shall be in compliance with §§115.121(a)(3), 115.122(a)(3), 115.126(a)(4), and 115.127(a)(5) of this title (relating to Emission Specifications; Control Requirements; Monitoring and Recordkeeping Requirements; and Exemptions) as soon as practicable, but no later than May 31, 1996.

(3) All bakeries in Collin, Dallas, Denton, and Tarrant Counties affected by §115.122(a)(3)(B) of this title shall be in compliance with §§115.121(a)(3), 115.122(a)(3), 115.126(a)(4), and 115.127(a)(5) of this title as soon as practicable, but no later than May 31, 1996.

(4) All bakeries in Collin, Dallas, Denton, and Tarrant Counties affected by §115.122(a)(3)(C) of this title shall be in compliance with §§115.121(a)(3), 115.122(a)(3)(C), 115.126(a)(5), and 115.127(a)(5) of this title as soon as practicable, but no later than one year, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the national ambient air quality standard (NAAQS) for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the Federal Clean Air Act (FCAA), §172(c)(9).

(5) All bakeries in El Paso County affected by §115.122(a)(3)(D) of this title shall be in compliance with §§115.121(a)(3), 115.122(a)(3)(D), 115.126(a)(5), and 115.127(a)(5) of this title as soon as practicable, but no later than one year, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the NAAQS for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the FCAA, §172(c)(9).

Adopted April 30, 1997 Effective May 22, 1997

WATER SEPARATION

§§115.131-115.133, 115.135-115.137, 115.139
Effective May 22, 1997

§115.131. Emission Specifications.

(a) For all persons in the Beaumont/Port Arthur, Dallas/ Fort Worth, El Paso, and Houston/ Galveston areas as defined in §115.10 of this title (relating to Definitions), any volatile organic compound (VOC) water separator equipped with a vapor recovery system in order to comply with §115.132(a) of this title (relating to Control Requirements) shall reduce emissions such that the true partial pressure of the VOC in vent gases to the atmosphere will not exceed a level of 0.5 psia (3.4 kPa).

(b) For all persons in Gregg, Nueces, and Victoria Counties, any VOC water separator equipped with a vapor recovery system in order to comply with §115.132(b) of this title shall reduce emissions such that the partial pressure of the VOC in vent gases to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, any VOC water separator equipped with a vapor recovery system in order to comply with §115.132(c) of this title shall reduce emissions such that the true partial pressure of the VOC in vent gases to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

Adopted October 25, 1995 Effective November 20, 1995

§115.132. Control Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, no person shall use any single or multiple compartment volatile organic compound (VOC) water separator which separates materials containing VOC obtained from any equipment which is processing, refining, treating, storing, or handling VOC, unless each compartment is controlled in one of the following ways:

(1) the compartment totally encloses the liquid contents and has all openings (such as roof seals and access doors) sealed such that the separator can hold a vacuum or pressure without emissions to the atmosphere, except through a pressure relief valve. All gauging and sampling devices shall be vapor-tight except during gauging or sampling. The pressure relief valve must be designed to open only as necessary to allow proper operation, and must be set at the maximum possible pressure necessary for proper operation, but such that the valve will not vent continuously;

(2) the compartment is equipped with a floating roof or internal floating cover which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. All gauging and sampling devices shall be vapor-tight, except during gauging or sampling; or

(3) the compartment is equipped with a vapor recovery system which satisfies the provisions of §115.131(a) of this title (relating to Emission Specifications).

(4) any water separator that becomes subject to the provisions of paragraphs (1), (2), or (3) of this subsection by exceeding provisions of §115.137(a) of this title (relating to Exemptions) will remain subject to the provisions of this subsection, even if throughput or emissions later fall below the exemption limits unless and until emissions are reduced to no more than the controlled emissions level existing before implementation of the project by which throughput or emission rate was reduced to less than the applicable exemption limits in §115.137(a) of this title; and

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or standard exemption required by Chapter 116 or Chapter 106 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification; and Exemptions from Permitting). If a standard exemption is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that standard exemption; or

(B) if authorization by permit, permit amendment, standard permit, or standard exemption is not required for the project, the owner/operator has given the executive director 30 days' notice of the project in writing.

(b) For Gregg, Nueces, and Victoria Counties, no person shall use any single or multiple compartment VOC water separator which separates materials containing VOC obtained from any equipment which is processing, refining, treating, storing, or handling VOC, unless each compartment is controlled in one of the following ways:

(1) the compartment totally encloses the liquid contents and has all openings (such as roof seals and access doors) sealed such that the separator can hold a vacuum or pressure without emissions to the atmosphere, except through a pressure relief valve. All gauging and sampling devices shall be vapor-tight except during gauging or sampling. The pressure relief valve must be designed to open only as necessary to allow proper operation, and must be set at the maximum possible pressure necessary for proper operation, but such that the valve will not vent continuously;

(2) the compartment is equipped with a floating roof or internal floating cover which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof or cover edge and tank wall. All gauging and sampling devices shall be vapor-tight, except during gauging or sampling; or

(3) the compartment is equipped with a vapor recovery system which satisfies the provisions of §115.131(b) of this title.

(c) For Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, no person shall use any single or multiple compartment VOC water separator which separates materials containing VOC

obtained from any equipment which is processing, refining, treating, storing, or handling VOC, unless each compartment is controlled in one of the following ways:

(1) the compartment totally encloses the liquid contents and has all openings (such as roof seals and access doors) sealed such that the separator can hold a vacuum or pressure without emissions to the atmosphere, except through a pressure relief valve. All gauging and sampling devices shall be vapor-tight except during gauging or sampling. The pressure relief valve must be designed to open only as necessary to allow proper operation, and must be set at the maximum possible pressure necessary for proper operation, but such that the valve will not vent continuously;

(2) the compartment is equipped with a floating roof or internal floating cover which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof or cover edge and tank wall. All gauging and sampling devices shall be vapor-tight, except during gauging or sampling; or

(3) the compartment is equipped with a vapor recovery system which satisfies the provisions of §115.131(c) of this title.

Adopted April 30, 1997 Effective May 22, 1997

§115.133. Alternate Control Requirements.

(a) For all persons in the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/ Galveston areas, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the Executive Director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

(b) For all persons in Gregg, Nueces, and Victoria Counties, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the Executive Director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

(c) For all persons in Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this section may be approved by the Executive Director in accordance with §115.910 of this title if emission reductions are demonstrated to be substantially equivalent.

Adopted October 25, 1995 Effective November 20, 1995

§115.135. Testing Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, compliance with §115.131(a), §115.132(a), and §115.137 of this title (relating to Emission Specifications; Control Requirements; and Exemptions) shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 Code of Federal Regulations (CFR) 60, Appendix A) for determining flow rate, as necessary;

(2) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(3) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(4) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(5) determination of true vapor pressure at actual storage temperature using American Society for Testing Materials (ASTM) Test Methods D323, D2879, D4953, D5190, or D5191; using API Publication 2517, Third Edition, 1989 or standard reference texts to convert from Reid vapor pressure to true vapor pressure, where applicable;

(6) minor modifications to these test methods approved by the Executive Director.

(b) For Gregg, Nueces, and Victoria Counties, compliance with §115.131(b), §115.132(b), and §115.137(b) of this title shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 CFR 60, Appendix A) for determining flow rate, as necessary;

(2) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(3) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane organic emissions as carbon;

(4) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(5) determination of true vapor pressure at actual storage temperature using ASTM Test Methods D323, D2879, D4953, D5190, or D5191; and using API Publication 2517, Third Edition, 1989 or standard reference texts to convert from Reid vapor pressure to true vapor pressure, where applicable; or

(6) minor modifications to these test methods approved by the Executive Director.

Adopted October 25, 1995 Effective November 20, 1995

§115.136. Monitoring and Recordkeeping Requirements.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following recordkeeping requirements shall apply.

(1) Any person who operates a single or multiple compartment volatile organic compound (VOC) water separator without the controls specified in §115.132(a) of this title (relating to Control Requirements) shall maintain complete and up-to-date records sufficient to demonstrate continuous compliance with the applicable exemption criteria including, but not limited to, the names and true vapor pressures of all such materials stored, processed, or handled at the affected property, and any other necessary operational information.

(2) Affected persons shall install and maintain monitors to continuously measure and record operational parameters of any emission control device installed to meet applicable control requirements. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including:

(A) the exhaust gas temperature immediately downstream of any direct-flame incinerator;

(B) the gas temperature immediately upstream and downstream of any catalytic incinerator or chiller;

(C) the VOC concentration of any carbon adsorption system exhaust gas to determine if breakthrough has occurred; and

(D) the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(3) Affected persons shall maintain the results of any testing conducted in accordance with the provisions specified in §115.135(a) of this title (relating to Testing Requirements).

(4) All records shall be maintained at the affected facility for at least two years and be made available upon request to representatives of the executive director, United States Environmental Protection Agency (EPA), or any local air pollution control agency having jurisdiction in the area.

(b) For Gregg, Nueces, and Victoria Counties, the following recordkeeping requirements shall apply.

(1) Any person who operates a single or multiple compartment VOC water separator without the controls specified in §115.132(b) of this title shall maintain complete and up-to-date records

sufficient to demonstrate continuous compliance with the applicable exemption criteria including, but not limited to, the names and true vapor pressures of all such materials stored, processed, or handled at the affected property, and any other necessary operational information.

(2) In Victoria County, affected persons shall install and maintain monitors to continuously measure and record operational parameters of any emission control device installed to meet applicable control requirements. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including:

(A) the exhaust gas temperature immediately downstream of any direct-flame incinerator;

(B) the gas temperature immediately upstream and downstream of any catalytic incinerator or chiller;

(C) the exhaust gas VOC concentration of any carbon adsorption system, as defined in §115.10 of this title (relating to Definitions), to determine if breakthrough has occurred; and

(D) the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(3) Affected persons shall maintain the results of any testing conducted in accordance with the provisions specified in §115.135(b) of this title.

(4) All records shall be maintained at the affected facility for at least two years and be made available upon request to representatives of the executive director, EPA, or any local air pollution control agency having jurisdiction in the area.

Adopted April 30, 1997 Effective May 22, 1997

§115.137. Exemptions.

(a) For the Beaumont/Port Arthur, Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions shall apply.

(1) Any volatile organic compound (VOC) water separator used exclusively in conjunction with the production of crude oil or condensate is exempt from §115.132(a) of this title (relating to Control Requirements) if the emissions from the separator have a combined weight of VOC equal to or less than 100 pounds (45.4 kg) in any continuous 24-hour period. When emissions from multiple sources (including, but not limited to, VOC water separators, treaters, storage tanks, and saltwater disposal tanks) are routed through a common vent, the calculation of VOC emissions for purposes of this exemption shall be based upon the total of all emission sources which are routed to the common vent. It is unacceptable to disconnect any of the multiple sources routed through a common vent for purposes of complying with this exemption.

(2) Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure of VOC less than 0.5 psia (3.4 kPa) obtained from any equipment is exempt from §115.132(a) of this title.

(3) Any single or multiple compartment VOC water separator which is designed solely to capture stormwater, spills, or exterior surface cleanup waters is exempt from this undesignated head (relating to Water Separation), provided that the separator is fully covered. These separators are not required to be equipped with pressure/vacuum vents or vapor recovery systems.

(b) For Gregg, Nueces, and Victoria Counties, the following exemptions shall apply:

(1) VOC water separators used exclusively in conjunction with the production of crude oil or condensate are exempt from §115.132(b) of this title.

(2) Any single or multiple compartment VOC water separator which separates less than 200 gallons (757 liters) a day of materials containing VOC obtained from any equipment is exempt from §115.132(b) of this title.

(3) Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure of VOC less than 1.5 psia (10.3 kPa) obtained from any equipment is exempt from §115.132(b) of this title.

(4) In Gregg County, any single or multiple compartment VOC water separator which separates materials obtained from any equipment in a facility other than a petroleum refinery is exempt from §115.132(b) of this title.

(5) Any single or multiple compartment VOC water separator which is designed solely to capture stormwater, spills, or exterior surface cleanup waters is exempt from this undesignated head (relating to Water Separation), provided that the separator is fully covered. These separators are not required to be equipped with pressure/vacuum vents or vapor recovery systems.

(c) For Aransas, Bexar, Calhoun, Matagorda, San Patricio, and Travis Counties, the following exemptions shall apply:

(1) VOC water separators used exclusively in conjunction with the production of crude oil or condensate are exempt from §115.132(c) of this title.

(2) Any single or multiple compartment VOC water separator which separates less than 200 gallons (757 liters) a day of materials containing VOC obtained from any equipment is exempt from §115.132(c) of this title.

(3) Any single or multiple compartment VOC water separator which separates materials having a true vapor pressure of VOC less than 1.5 psia (10.3 kPa) obtained from any equipment is exempt from §115.132(c) of this title.

(4) Any single or multiple compartment VOC water separator which is designed solely to capture stormwater, spills, or exterior surface cleanup waters is exempt from this undesignated head (relating to Water Separation), provided that the separator is fully covered. These separators are not required to be equipped with pressure/vacuum vents or vapor recovery systems.

Adopted April 30, 1997 Effective May 22, 1997

§115.139. Counties and Compliance Schedules.

All affected persons in Aransas, Bexar, Brazoria, Calhoun, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Gregg, Hardin, Harris, Jefferson, Liberty, Matagorda, Montgomery, Nueces, Orange, San Patricio, Tarrant, Travis, Victoria, and Waller Counties shall continue to comply with this undesignated head (relating to Water Separation) as required by §115.930 of this title (relating to Compliance Dates).

Adopted October 25, 1995 Effective November 20, 1995

INDUSTRIAL WASTEWATER

§§115.140, 115.142-115.149
Effective May 22, 1997

§115.140. Definitions.

The following terms, when used in this undesignated head, shall have the following meanings, unless the context clearly indicates otherwise.

Affected source category - Any of the following source categories:

(A) organic chemicals, plastics, and synthetic fibers manufacturing industry under Standard Industrial Classification (SIC) codes 2821, 2823, 2824, 2865, and 2869;

(B) pesticides manufacturing industry under SIC code 2879;

(C) petroleum refining industry under SIC code 2911;

(D) pharmaceutical manufacturing industry under SIC codes 2833, 2834, and 2836;

(E) hazardous waste treatment, storage, and disposal facilities industry under SIC codes 4952, 4953, and 4959.

Affected volatile organic compounds (VOC) wastewater stream - A VOC wastewater stream from an affected source category with either a VOC concentration greater than or equal to 10,000 parts per million by weight (ppmw) or a VOC concentration greater than or equal to 1000 ppmw and a flow rate greater than or equal to 10 liters per minute (2.64 gallons per minute), as determined in accordance with §115.148, of this title (relating to Determination of Wastewater Characteristics).

Plant - All facilities included within the same Texas Natural Resource Conservation Commission account number.

Point of generation - The location where a VOC wastewater stream exits a process unit.

Properly operated biotreatment unit - A suspended growth process that generates biomass and recycles biomass to maintain biomass concentrations in the treatment unit. The average concentration of suspended biomass maintained in the aeration basin of a properly operated biotreatment unit shall equal or exceed 1.0 kilogram per cubic meter (kg/m^3), measured as total suspended solids.

Volatile organic compounds (VOC) wastewater - Water which, as part of a facility process, has come into contact with VOC and is intended for treatment, disposal, or discharge without further use in the process unit.

Adopted May 4, 1994 Effective May 27, 1994

§115.142. Control Requirements.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, any person who is the owner or operator of an affected source category within a plant shall comply with the following control requirements. Any component of a wastewater storage, handling, transfer, or treatment facility, if the component contains an affected volatile organic compounds (VOC) wastewater stream, shall be controlled in accordance with

either paragraph (1) or (2) of this section, except for a properly operated biotreatment unit and a wet weather retention basin. The control requirements shall apply from the point of generation of an affected VOC wastewater stream until the affected VOC wastewater stream is either returned to a process unit or is treated to remove VOC so that the wastewater stream no longer meets the definition of an affected VOC wastewater stream. For wastewater streams which are combined and then treated to remove VOC, the amount of VOC to be removed from the combined wastewater stream shall be at least the total amount of VOC that would be removed to treat each individual affected VOC wastewater stream so that they no longer meet the definition of affected VOC wastewater stream. For this undesignated head, a component of a wastewater storage, handling, transfer, or treatment facility shall include, but is not limited to, wastewater storage tanks, surface impoundments, wastewater drains, junctions boxes, lift stations, weirs, and oil-water separators.

(1) The wastewater component shall meet the following requirements.

(A) All components shall be fully covered or be equipped with water seal controls.

(B) All openings shall be closed and sealed, except when the opening is in actual use for its intended purpose or the component is maintained at a pressure less than atmospheric pressure.

(C) All liquid contents shall be totally enclosed.

(D) If any cover, other than a junction box cover, is equipped with a vent, the vent shall be equipped with either a vapor recovery system which maintains a minimum control efficiency of 90% or a system which prevents the flow of VOC vapors from the vent during normal operation. Any junction box vent shall be equipped with a vent pipe at least 90 centimeters (cm) (36 inches (in.)) in length and no more than 10.2 cm (4.0 in.) in diameter.

(E) All gauging and sampling devices shall be vapor-tight except during gauging or sampling.

(F) Any loading or unloading to or from a portable container by pumping shall be performed with a submerged fill pipe.

(G) All seals and cover connections shall be maintained in proper condition. For purposes of this rule, "proper condition" means that covers shall have a tight seal around the edge and shall be kept in place except as allowed by this undesignated head, that seals shall not be broken or have gaps, and that sewer lines shall have no visible gaps or cracks in joints, seals, or other emission interfaces.

(H) If any seal or cover connection is found to not be in proper condition, the repair or correction shall be completed as soon as possible but within 15 days of detection, unless the repair or correction is technically impossible without requiring a unit shutdown, in which case the repair or correction shall be made before the end of the next unit shutdown.

(2) The wastewater component shall be equipped with a floating roof or internal floating cover which meets the following requirements.

(A) All openings in an internal or external floating roof except for automatic bleeder vents and rim space vents shall provide a projection below the liquid surface or be equipped with a cover, seal, or lid. Any cover, seal, or lid shall be in a closed (i.e., no visible gap) position at all times except when the opening is in actual use for its intended purpose.

(B) Automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports.

(C) Rim vents, if provided, shall be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(D) Any emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90% of the area of the opening.

(E) There shall be no visible holes, tears, or other openings in any seal or seal fabric.

(F) Secondary seals shall be the rim-mounted type (i.e., the seal shall be continuous from the floating roof to the tank wall). The accumulated area of gaps that exceed 1/8 in. (0.32 cm) in width between the secondary seal and tank wall shall be no greater than 1.0 $in.^2$ per foot (21 cm^2/meter) of tank diameter;

(3) Any wastewater component that becomes subject to this section by exceeding the provisions of §115.147 of this title (relating to Exemptions) or an affected VOC wastewater stream as defined in §115.140 of this title (relating to Definitions), will remain subject to the requirements of this section, even if the component later falls below those provisions unless and until emissions are reduced to at or below the controlled emissions level existing prior to the implementation of the project by which throughput or emission rate was reduced and less than the applicable exemption levels in §115.147 of this title, and

(A) the project by which throughput or emission rate was reduced is authorized by any permit or permit amendment or standard permit or standard exemption required by Chapter 116 of this title (relating to Control of Air Pollution By Permits for New Construction or Modification). If a standard exemption is available for the project, compliance with this subsection must be maintained for 30 days after the filing of documentation of compliance with that standard exemption; or

(B) if authorization by permit or standard exemption is not required for the project, the owner or operator has given the Texas Natural Resource Conservation Commission 30 days' notice of the project in writing.

Adopted May 4, 1994 Effective May 27, 1994

§115.143. Alternate Control Requirements.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, alternate methods of demonstrating and documenting continuous compliance with applicable control requirements or exemption criteria in this undesignated head may be approved by the Executive Director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

Adopted January 4, 1995 Effective January 27, 1995

§115.144. Inspection and Monitoring Requirements.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, any person who is the owner or operator of a facility subject to the control requirements of §115.142 of this title (relating to Control Requirements), shall comply with the following inspection and monitoring requirements.

(1) All seals and covers used to comply with §115.142(1) of this title, shall be inspected according to the following schedules to ensure compliance with §115.142(1)(G)-(H) of this title:

(A) initially and semiannually thereafter to ensure compliance with §115.142(1)(G) of this title; and

(B) upon completion of repair to ensure compliance with §115.142(1)(G)-(H) of this title.

(2) Floating roofs and internal floating covers used to comply with §115.142(2) of this title, shall be subject to the following requirements. All secondary seals shall be inspected according to the following schedules to ensure compliance with §115.142(2)(E)-(F) of this title.

(A) If the primary seal is vapor-mounted, the secondary seal gap area shall be physically measured annually to ensure compliance with §115.142(2)(F) of this title.

(B) If the tank is equipped with a metallic type shoe or liquid-mounted primary seal, compliance with §115.142(2)(F) of this title may be determined by visual inspection.

(C) All secondary seals shall be visually inspected semiannually to ensure compliance with §115.142(2)(E)-(F) of this title.

(3) Monitors shall be installed and maintained as required by this subsection to measure operational parameters of any emission control device or other device installed to comply with §115.142 of this title. Such monitoring and parameters shall be sufficient to demonstrate proper functioning of those devices, and include the monitoring and parameters listed in subparagraphs (A) through (F) of this paragraph, as applicable. In lieu of the monitoring and parameters listed in subparagraphs (A) through (F) of this paragraph, other monitoring and parameters may be approved or required by the Executive Director.

(A) for an enclosed combustion device (including, but not limited to, a thermal incinerator, boiler, or process heater), continuously monitor and record the temperature of the gas stream either in the combustion chamber or immediately downstream before any substantial heat exchange;

(B) for a catalytic incinerator, continuously monitor and record the temperature of the gas stream immediately before and after the catalyst bed;

(C) for a condenser (chiller), continuously monitor and record the temperature of the gas stream at the condenser exit;

(D) for a carbon adsorber, continuously monitor and record the VOC concentration of exhaust gas stream to determine if breakthrough has occurred. If the carbon adsorber does not regenerate the carbon bed directly in the control device (e.g., a carbon canister), the exhaust gas stream shall be monitored daily or at intervals no greater than 20 percent of the design replacement interval, whichever is greater, or as an alternative to conducting monitoring, the carbon may be replaced with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and the VOC concentration in the gas stream vented to the carbon adsorber;

(E) for a flare, continuously monitor for the presence of a flare pilot light using a thermocouple or any other equivalent device to detect the presence of a flame; and

(F) for a steam stripper, continuously monitor and record the steam flow rate, the wastewater feed mass flow rate, the wastewater feed temperature, and condenser vapor outlet temperature.

Adopted May 4, 1994 Effective May 27, 1994

§115.145. Approved Test Methods.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, compliance with this undesignated head shall be determined by applying the following test methods, as appropriate:

(1) for determination of gas flow rate - Test Methods 1-4 (40 Code of Federal Regulations (CFR) Part 60, Appendix A);

(2) for determination of gaseous organic compound emissions by gas chromatography - Test Method 18 (40 CFR Part 60, Appendix A);

(3) for determination of volatile organic compound (VOC) leaks and for monitoring a carbon canister in accordance with §115.144(3)(D) (relating to Inspection and Monitoring Requirements) - Test Method 21 (40 CFR Part 60, Appendix A);

(4) for determination of total gaseous nonmethane organic emissions as carbon - Test Method 25 (40 CFR Part 60, Appendix A);

(5) for determination of total gaseous organic concentration using a flame ionization or a non dispersive infrared analyzer - Test Methods 25A or 25B (40 CFR Part 60, Appendix A);

(6) for determination of VOC concentration of wastewater samples - Test Method 5030 (purge and trap) followed by Test Method 8015 with a DB-5 boiling point (or equivalent column), and flame ionization detector, with the detector calibrated with benzene (SW-846 and 40 CFR Part 261); Test Methods 3810, 5030 (followed by 8020), 8240, 8260, and 9060 (SW-846 and 40 CFR Part 261); Test Methods 602 and 624 (40 CFR Part 136); Test Method 5310(B)(Standard Methods 17th Edition); or Test Method 25D (40 CFR Part 60, Appendix A);

(7) for determination of true vapor pressure - American Society for Testing and Materials Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with American Petroleum Institute Publication 2517, Third Edition, 1989; and

(8) minor modifications to these test methods approved by the Executive Director.

Adopted May 4, 1994 Effective May 27, 1994

§115.146. Recordkeeping Requirements.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, any person who is the owner or operator of an affected source category within a plant shall comply with the following recordkeeping requirements.

(1) Complete and up-to-date records shall be maintained as needed to demonstrate compliance with §115.142 of this title (relating to Control Requirements) which are sufficient to demonstrate the characteristics of wastewater streams and the qualification for any exemptions claimed under §115.147 of this title (relating to Exemptions).

(2) Records shall be maintained of the results of any inspection or monitoring conducted in accordance with the provisions specified in §115.144 of this title (relating to Inspection and Monitoring Requirements).

(3) Records shall be maintained of the results of any testing conducted in accordance with the provisions specified in §115.145 of this title (relating to Approved Test Methods).

(4) Records shall be maintained of the dates and reasons for any maintenance and repair of the required control devices and the estimated quantity and duration of VOC emissions during such activities.

(5) All records shall be maintained at the plant for at least 2 years and be made available upon request to representatives of the executive director, United States Environmental Protection Agency, or any local air pollution control agency having jurisdiction in the area.

Adopted April 30, 1997 Effective May 22, 1997

§115.147. Exemptions.

For the Dallas/Fort Worth, El Paso, and Houston/Galveston areas, the following exemptions shall apply.

(1) Any plant with an annual volatile organic compounds (VOC) loading in wastewater, as determined in accordance with §115.148 of this title (relating to Determination of Wastewater Characteristics), less than or equal to 10 megagrams (Mg) (11.03 tons) shall be exempt from the control requirements of §115.142 of this title (relating to Control Requirements).

(2) At any plant with an annual VOC loading in wastewater, as determined in accordance with §115.148 of this title greater than 10 Mg (11.03 tons), any person who is the owner or operator of the plant may exempt from the control requirements of §115.142 of this title one or more affected VOC wastewater streams for which the sum of the annual VOC loading in wastewater for all of the exempted streams is less than or equal to 10 Mg (11.03 tons).

(3) Unless specifically required by this undesignated head, any component of a wastewater storage, handling, transfer, or treatment facility to which the requirements of this undesignated head applies shall be exempt from the requirements of any other portion of this chapter.

(4) If compliance with the control requirements of §115.142 of this title would create a safety hazard in a component of a wastewater storage, handling, transfer, or treatment facility, the owner or operator may request the Executive Director to exempt that component from the control requirements of §115.142 of this title. The Executive Director shall approve the request if justified by the likelihood and magnitude of the potential injury and if the Executive Director determines that reducing or eliminating the hazard is technologically or economically unreasonable based on the emissions reductions that would be achieved.

(5) Wastewater components are exempt from the control requirements of §115.142 of this title if the overall control of VOC emissions at the account from wastewater from affected source categories is at least 90% less than the 1990 baseline emissions inventory, and the following requirements are met.

(A) To qualify for the exemption available under this paragraph after December 31, 1996, the owner or operator of a wastewater component for which a control plan was not previously submitted shall submit a control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction which demonstrates that the overall control of VOC emissions at the account from wastewater from affected source categories will be at least 90% less than the 1990 baseline emissions inventory. Any control plan submitted after December 31, 1996, must be approved by the executive director before the owner or operator may use the exemption available under this paragraph for compliance. At a minimum, the control plan shall include the applicable emission point number (EPN); the facility identification number (FIN); the calendar year 1990 emission rates of wastewater from affected source categories (consistent with the 1990 emissions inventory); a plot plan showing the location, EPN, and

FIN associated with a wastewater storage, handling, transfer, or treatment facility; the VOC emission rates for the preceding calendar year; and an explanation of the recordkeeping procedure and calculations which will be used to demonstrate compliance. The VOC emission rates shall be calculated in a manner consistent with the 1990 emissions inventory.

(B) In order to maintain exemption status under this paragraph, the owner or operator shall submit an annual report no later than March 31 of each year to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction, which demonstrates that the overall control of VOC emissions at the account from wastewater from affected source categories during the preceding calendar year is at least 90% less than the 1990 baseline emissions inventory. At a minimum, the report shall include the EPN; FIN; the throughput of wastewater from affected source categories; a plot plan showing the location, EPN, and FIN associated with a wastewater storage, handling, transfer, or treatment facility; and the VOC emission rates for the preceding calendar year. The emission rates for the preceding calendar year shall be calculated in a manner consistent with the 1990 emissions inventory.

(C) All representations in control plans and annual reports become enforceable conditions. It shall be unlawful for any person to vary from such representations if the variation will cause a change in the identity of the specific emission sources being controlled or the method of control of emissions unless the owner or operator of the wastewater component submits a revised control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction no later than 30 days after the change. All control plans and reports shall include documentation that the overall reduction of VOC emissions at the account from wastewater from affected source categories continues to be at least 90% less than the 1990 baseline emissions inventory. The emission rates shall be calculated in a manner consistent with the 1990 emissions inventory.

Adopted April 30, 1997 Effective May 22, 1997

§115.148. Determination of Wastewater Characteristics.

The determination of the characteristics of a wastewater stream for purposes of this undesignated head shall be made as follows.

(1) The characteristics shall be determined at a location between the point of generation and before the wastewater stream is exposed to the atmosphere, treated for volatile organic compounds (VOC) removal, or mixed with another wastewater stream. For wastewater streams which, prior to November 15, 1993, were either actually being mixed or construction had commenced which would result in the wastewater streams being mixed, this mixing shall not establish a limit on where the characteristics may be determined.

(2) The flow rate of a wastewater stream shall be determined on the basis of an annual average by one of the following methods:

(A) the highest annual quantity of wastewater managed, based on historical records for the most recent five years of operation, or for the entire time the wastewater stream has existed if less than five years but at least one year;

(B) the maximum design capacity of the wastewater component;

(C) the maximum design capacity to generate wastewater of the process unit generating the wastewater stream;

(D) measurements that are representative of the actual, normal wastewater generation rates.

(3) The VOC concentration of a wastewater stream shall be determined on the basis of a flow-weighted annual average by one of the following methods, or by a combination of the methods. If the Executive Director determines that the VOC concentration cannot be adequately determined by knowledge of the wastewater, or by bench-scale or pilot-scale test data, the VOC concentration shall be determined in accordance with subparagraph (C) of this paragraph, or by a combination of the methods in subparagraphs (A), (B), and (C) of this paragraph. VOC with a Henry's Law Constant less than $7.5x10^{-5}$ atm-m^3/mole at 25°C shall not be included in the determination of VOC concentration.

(A) Knowledge of the wastewater. Sufficient information to document the VOC concentration. Examples of information include material balances, records of chemical purchases, or previous test results.

(B) Bench-scale or pilot-scale test data. Sufficient information to demonstrate that the bench-scale or pilot-scale test concentration data are representative of the actual VOC concentration.

(C) Measurements. Collect a minimum of three representative samples from the wastewater stream and determine the VOC concentration for each sample in accordance with §115.145 of this title (relating to Approved Test Methods). The VOC concentration of the wastewater stream shall be the flow-weighted average of the individual samples.

(4) The annual VOC loading in wastewater for a wastewater stream shall be the annual average flow rate determined in paragraph (2) of this section multiplied by the annual average VOC concentration determined in paragraph (3) of this section.

(5) The annual VOC loading in wastewater for a plant shall be the sum of the annual VOC loading in wastewater for each affected VOC wastewater stream.

Adopted May 4, 1994 Effective May 27, 1994

§115.149. Counties and Compliance Schedules.

(a) For Brazoria, Chambers, Collin, Dallas, Denton, El Paso, Fort Bend, Galveston, Harris, Liberty, Montgomery, Tarrant, and Waller Counties, any person who is the owner or operator of an affected source category within a plant shall be in compliance with this undesignated head (relating to Industrial Wastewater) as soon as practicable, but no later than November 15, 1996.

(b) For Hardin, Jefferson, and Orange Counties, any person who is the owner or operator of an affected source category within a plant shall be in compliance with this undesignated head (relating to Industrial Wastewater) as soon as practicable, but no later than three years, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the NAAQS for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the Federal Clean Air Act, §172(c)(9).

Adopted April 30, 1997 Effective May 22, 1997

MUNICIPAL SOLID WASTE LANDFILLS

§§115.152, 115.153, 115.155-115.157, 115.159
Effective May 22, 1997

§115.152. Control Requirements.

(a) For the Houston/Galveston, El Paso, and Dallas/Fort Worth ozone nonattainment areas as defined in §115.10 of this title (relating to Definitions), no person shall operate or allow the operation of a municipal solid waste landfill (MSWLF) unless each owner or operator of a MSWLF calculates the nonmethane organic compounds (NMOC) emission rate for the landfill using the procedures provided in §60.753 of the proposed federal rules published in the May 30, 1991, issue of the *Federal Register* (58 FR 104). The volatile organic compound emission rate shall be calculated and recalculated annually using the following default values: Generation Rate Constant, K = 0.05 1/year; Generation Potential, L_o = 170 m^3/Mg; Non-methane Gas Concentration, C_{NMOC} = 4000 ppmv. If at any time the calculated NMOC emission rate exceeds 150 Megagrams (Mg) per year, the owner or operator shall:

(1) install a gas collection and control system (GCCS) subject to the requirements of §60.752(b)(2)(ii) of the proposed federal rules published in the May 30, 1991, issue of the *Federal Register* (58 FR 104). Alternative design methodologies to the GCCS are subject to the approval of the Executive Director;

(2) control NMOC gas emissions in one of the following ways:

(A) the total collected gas is routed to an open flare designed and operated in accordance with 40 CFR §60.18;

(B) the total collected gas is routed to a control device which reduces the total collected gas emissions by 98% or to less than 20 parts per million by volume; or

(C) the total collected gas is routed to a gas treatment system which processes the collected gas for subsequent use or sale. The sum of all emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of subparagraph (A) of this paragraph.

(3) operate the GCCS in compliance with §60.754 of the proposed federal rules published in the May 30, 1991, issue of the *Federal Register* (58 FR 104).

(b) The GCCS may be capped or removed if all of the following conditions are met:

(1) the landfill shall no longer accept waste and shall be permanently closed;

(2) the GCCS shall have been in continuous operation for at least 15 years; and

(3) the calculated NMOC emission rate shall be less than 150 Mg per year on three successive test dates. The test dates shall be no closer than three months apart, and no longer than six months apart.

Adopted May 4, 1994 Effective May 27, 1994

§115.153. Alternate Control Requirements.

For all persons in the Houston/Galveston, El Paso, and Dallas/Fort Worth ozone nonattainment areas, alternate methods of demonstrating and documenting continuous compliance with the applicable control requirements or exemption criteria in this undesignated head (relating to Municipal Solid Waste Landfills) may be approved by the executive director in accordance with §115.910 of this title (relating to Availability of Alternate Means of Control) if emission reductions are demonstrated to be substantially equivalent.

Adopted April 30, 1997 Effective May 22, 1997

§115.155. Approved Test Methods.

Compliance with §115.152 of this title (relating to Control Requirements) shall be determined by applying the following test methods, as appropriate:

(1) Test Methods 1-4 (40 CFR 60, Appendix A) for determining flow rate, oxygen concentration, or moisture, as necessary;

(2) Test Method 2E as proposed under 40 CFR 60, Appendix A, published in the May 30, 1991, issue of the *Federal Register* (58 FR 104) for designing the area of influence of the gas collection and control system (GCCS);

(3) Test Method 3C as proposed under 40 CFR 60, Appendix A, published in the May 30, 1991, issue of the *Federal Register* (58 FR 104) for measuring the concentration of nitrogen in the landfill gas;

(4) Test Method 18 (40 CFR 60, Appendix A) for determining gaseous organic compound emissions by gas chromatography;

(5) Test Method 21 (40 CFR 60, Appendix A) for determining volatile organic compound leaks;

(6) Test Method 25 (40 CFR 60, Appendix A) for determining total gaseous nonmethane (CH_4) organic emissions as carbon;

(7) Test Methods 25A or 25B (40 CFR 60, Appendix A) for determining total gaseous organic concentrations using flame ionization or nondispersive infrared analysis;

(8) Test Method 25C as proposed under 40 CFR 60, Appendix A, published in the May 30, 1991, issue of the *Federal Register* (58 FR 104) for determining non-CH_4 organic compounds in landfill gases;

(9) determination of true vapor pressure using American Society for Testing and Materials Test Methods D323-89, D2879, D4953, D5190, or D5191 for the measurement of Reid vapor pressure, adjusted for actual storage temperature in accordance with American Petroleum Institute Publication 2517, Third Edition, 1989;

(10) one of the above test methods with minor modifications as approved by the Executive Director.

Adopted May 4, 1994 Effective May 27, 1994

§115.156. Monitoring and Recordkeeping Requirements.

For the Houston/Galveston, El Paso, and Dallas/Fort Worth ozone nonattainment areas, the following recordkeeping requirements shall apply.

(1) For municipal solid waste landfills (MSWLF), which are not subject to the requirements of §115.152 of this title (relating to Control Requirements), the owner or operator of each landfill shall maintain complete and up-to-date records sufficient to demonstrate continuous compliance with the applicable exemption criteria including, but not limited to, an annual calculation of the non-methane organic compounds (NMOC) emissions rate and any other necessary operational information.

(2) For MSWLF, which are subject to the requirements of §115.152 of this title, the owner or operator of each landfill shall install and maintain monitors to continuously measure and record operational parameters of any emission control device installed to meet applicable control requirements. Such records must be sufficient to demonstrate proper functioning of those devices to design specifications, including but not limited to:

(A) the exhaust gas temperature immediately downstream for any direct-flame incinerator or enclosed flare;

(B) the gas temperature immediately upstream and downstream for any catalytic incinerator or chiller;

(C) the NMOC concentration for any carbon adsorption system exhaust gas to determine if breakthrough has occurred;

(D) the gas flowrate to the combustion device;

(E) monthly readings of the gauge pressure at each well in the gas collection header;

(F) the percent methane concentration at each well in the gas collection header; and

(G) the dates and reasons for any maintenance and repair of the required gas collection and control system and control devices and the estimated quantity and duration of NMOC emissions during such activities.

(3) Each owner or operator of a MSWLF shall annually submit an emissions inventory report as required by §101.10 of this title (relating to Emissions Inventory Requirements). This report shall include:

(A) calculation of the NMOC emission rate;

(B) a map or plot of the landfill, providing the size and location, and identifying all areas where waste may be landfilled according to the provisions of the permit;

(C) the maximum design capacity;

(D) notification of any increase in the size of the landfill. The increase may result from:

(i) an increase in the permitted area or depth of the landfill;

(ii) a change in the operating procedures; or

(iii) any other means which will increase the maximum design capacity of the landfill; and

(E) notification of closure.

(i) For purposes of this subchapter, closure means that waste is no longer being placed in the landfill, and no additional wastes will be placed in the landfill without filing a notification of modification, as prescribed by the commission.

(ii) Landfills that are closed permanently between reporting periods shall report as directed by §101.10 of this title and continue reporting until the calculated NMOC emission rate falls below 150 Mg per year on three successive test dates. The test dates shall be no closer than three months apart, and no longer that six months apart.

§115.157. Exemptions.

For the Houston/Galveston, El Paso, and Dallas/Fort Worth ozone nonattainment areas, the following facilities are exempt:

(1) any municipal solid waste landfill (MSWLF) with a capacity of less than 100,000 Mg (111,000 tons);

(2) any MSWLF which closed or stopped receiving waste prior to November 8, 1987, and does not have the capacity to receive more waste.

Adopted May 4, 1994 Effective May 27, 1994

§115.159. Counties and Compliance Schedule.

(a) All affected municipal solid waste landfills (MSWLFs) in Collin, Dallas, Denton, and Tarrant Counties shall be in compliance with this undesignated head (relating to Municipal Solid Waste Landfills) as soon as practicable, but no later than May 31, 1996.

(b) All affected MSWLFs in El Paso County shall be in compliance with this undesignated head (relating to Municipal Solid Waste Landfills) as soon as practicable, but no later than November 15, 1996.

(c) All affected MSWLFs in Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties shall be in compliance with this undesignated head (relating to Municipal Solid Waste Landfills) as soon as practicable, but no later than one year, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the National Ambient Air Quality Standard (NAAQS) for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the Federal Clean Air Act, §172(c)(9).

Adopted April 30, 1997 Effective May 22, 1997